

Develop a Fact Sheet

Grades

8-12

Subjects

Health, Physical Science, Biology, English, Art

Duration

Open ended project.

Materials

- Access to computers, the computer lab, the library, and the Internet
- Examples of Fact Sheets
- Various art supplies (markers, colored pencils, construction paper, glue, tape, scissors)
- Copies of rubric

Objectives

TSWBAT design a fact sheet intended to educate the public about the harmful health effects of hazardous substances.

TSWBAT conduct research to support the information included in their fact sheet.

Set

List as many hazardous substances as you can. Pick one and write what you know about it. How does it affect human health? How did you learn about the health effects of this substance?

Instructional Input

Invite student to share answers. Develop a consensus among the students by discussing what a hazardous substance is (a substance which could be harmful to people who come into contact with it). Discuss the ways students have learned about hazardous substances. Show an example of a fact sheet. Have students seen one of these before (most likely they have in the form of anti-smoking or drug pamphlets)? Inform students that the purpose of a fact sheet is to inform the public about health issues and hazardous substances.

The student's task is to choose a hazardous substance and develop a fact sheet for it. Fact sheets should contain the following:

- Title
- An explanation of what the hazardous substance is.
- An explanation of what happens when the substance enters the environment.
- Description of how humans can be exposed.
- Description of the health effects of the hazardous substance.
- How to avoid exposure.
- What to do if you are exposed.
- Summary

- A section of references people can access for more information.

Students should be required to hand in a set of references to document the sources of their information. Require three or more and STRONGLY discourage plagiarism.

Formatting

Traditionally, fact sheets are no longer than one page, filled front and back. Fact sheets can have simple or elaborate formats, as long as they effectively convey their message. The rationale behind a one-page document is that many people will not take the time to read a multi page document. Also, it is much easier to distribute a single page fact sheet to the public than multi-page documents.

Provide examples of fact sheets for the students. Include a variety of formats (simple, columns, two and three fold pamphlets).

Evaluation

Students will be required to peer review each other's fact sheets prior to handing them in, using the rubric.

Rubrics should be used to evaluate the fact sheets. You may develop your own, develop one in conjunction with the class, or use the rubric provided.

Encourage students to use the rubrics to assess their own work as they develop the fact sheets. You may want to practice using the rubric by allowing students to score sample fact sheets, matching their scores against yours.

Students may be allowed class time to research and construct their fact sheets, or you may require that they work on their own, or both. Provide the students with the following links as research sources:

Brief summary of many different hazardous substances.

http://www.nce.unr.edu/swp/water_factsheets.htm

Excellent links to many hazardous substances identified by the EPA.

<http://www.epa.gov/ebtpages/pollutants.html>

ATSDR's ToxFAQs – extensive fact sheets on many hazardous substances.

<http://www.atsdr.cdc.gov/toxfaq.html>

Top 20 Hazardous Substances.

<http://www.atsdr.cdc.gov/cxcx3.html>

United States National Library of Medicine

<http://www.nlm.nih.gov/pubs/factsheets/hsdbfs.html>

These are by no means the only sources available!

Closure

You may wish to have the students share their fact sheets, or even require them to present them in class. After evaluating the fact sheets, hang them in the hall, the library, the office, the nurse's office, or any place where they might be appropriate. You may even wish to submit them to your local health district for evaluation.

Fact Sheet Rubric

Category	Excellent __ points	Good __ points	Room for improvement __ points	Comments
Content	All required elements of the fact sheet are included and properly addressed. The reader is educated about all pertinent aspects of the substance's effects on human health.	Most elements of the fact sheet are included and properly addressed. The reader is educated about most pertinent aspects of the substance's effects on human health.	Half of the required elements of the fact sheet are missing or are poorly addressed. The reader is confused about the subject or not educated about key issues regarding the substance's effects on human health.	
Formatting	Formatting catches the reader's attention and assists them in locating important information. Formatting enhances the flow of the fact sheet. Creative.	Formatting is logical and easy to follow. Formatting allows reader to find all necessary information.	Formatting does not have good flow. The reader may be confused by the order of information. The reader may not be able to easily find important information.	
Appearance	Typed neatly with no correction marks. Text lines up and looks like a professionally published document. Graphics are neat and address the topic.	Typed or written neatly with no more than five (5) correction marks. Text lines up and is easily read. Graphics are neat and address the topic.	Not typed or not written neatly. More than 5 correction marks. Text does not line up consistently. Difficult to read. Graphics are not neat and / or do not address the topic.	
Spelling and grammar	No more than one spelling or grammar mistake.	Few (≤ 5) spelling or grammar mistakes.	Many (> 5) spelling or grammar mistakes.	
Sources	More than three sources are correctly cited on a separate sheet of paper. Wording of the sheet reflects the student's own words. No plagiarism.	Three sources are correctly cited on a separate sheet of paper, or more than three sources, but not cited correctly. Some of the wording does not reflect the words of the student. Minor plagiarism.	Fewer than three sources cited, and / or sources are not correctly cited on separate sheet of paper. Wording is not that of the student. Plagiarism suspected.	

The Fact Sheets should include

- Title
- An explanation of what the hazardous substance is and what happens when the substance enters the environment.
- Description of how humans can be exposed and the health effects of the hazardous substance.
- How to avoid exposure and what to do if exposed.
- Summary
- A section of references people can access for more information.